

Pending Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (previously presented) A method of determining communication link quality employing beacon signals, the method comprising the steps of:

equipping a plurality of communications satellites with beacon transmitters that generate beacon signals including a continuous wave (CW) tone and a coded signal that are different for each of the communications satellites;

providing a communications device, that is capable of establishing UHF communications links with the communications satellites, with means for receiving and processing the beacon signals to determine the quality of the UHF communications links; and

providing the communications device with means for communicating to a user information pertaining to the quality of the UHF communications links and identifying individual component impairments of a total link degradation.

2. (original) The method of determining communication link quality employing beacon signals of claim 1, wherein for each of the communications satellites:

the coded signal is within a communications bandwidth employed by the communications satellite; and

the CW tone is out of the communications bandwidth.

3. (original) The method of determining communication link quality employing beacon signals of claim 1, wherein the communication device comprises a transponder.

4. (previously presented) The method of determining communication link quality employing beacon signals of claim 1, wherein the communication device comprises at least one of a mobile voice communicator and a mobile data communicator.

5. (original) The method of determining communication link quality employing beacon signals of claim 1, wherein the means for receiving and processing the beacon signals comprises a processor.

6. (original) The method of determining communication link quality employing beacon signals of claim 1, wherein the means for receiving and processing the beacon signals comprises one or more beacon receivers.

7. (original) The method of determining communication link quality employing beacon signals of claim 6, wherein the one or more beacon receivers comprise a continuous wave (CW) tone beacon receiver.

8. (original) The method of determining communication link quality employing beacon signals of claim 6, wherein the one or more beacon receivers comprise a coded signal beacon receiver.

9. (canceled)

10. (previously presented) The method of determining communication link quality employing beacon signals of claim 1, wherein the means for communicating information provides a real time indication of link quality.

11. (previously presented) The method of determining communication link quality employing beacon signals of claim 1, wherein the means for communicating information comprises a display device operably interconnected to the communications device.

12. (previously presented) The method of determining communication link quality employing beacon signals of claim 1, wherein the information includes noise information.

13. (previously presented) The method of determining communication link quality employing beacon signals of claim 1, wherein the information includes interference information.

14. (previously presented) The method of determining communication link quality employing beacon signals of claim 1, wherein the information includes scintillation information pertaining to scintillation caused by multipath or ionospheric effects.

15. (original) The method of determining communication link quality employing beacon signals of claim 1, further comprising the step of:

providing the communications device with a means for adjusting a transmission power of the communications device.

16. (original) The method of determining communication link quality employing beacon signals of claim 15, wherein the means for adjusting transmission power comprises a booster device that includes an alternative high gain antenna.

17. (original) The method of determining communication link quality employing beacon signals of claim 16, wherein the alternative high gain antenna is a log periodic antenna.

18. (original) The method of determining communication link quality employing beacon signals of claim 16, wherein the alternative high gain antenna is a Yagi antenna.

19. (original) The method of determining communication link quality employing beacon signals of claim 16, wherein the alternative high gain antenna is articulated so that it can be manipulated as desired into an opened operating configuration or a collapsed storage configuration.

20. (currently amended) A method of determining communication link quality employing beacon signals, the method comprising the step of:

employing one or more beacon receivers and a processor to receive and process beacon signals from one or more communications stations to determine link quality between the communications device and the communications stations, the beacon signals including a continuous wave (CW) tone and a coded signal that are different for each of the communications stations, the processor being programmed to process data pertaining to measured signal levels of the beacon signals to provide ~~[[an]]~~ a real time indication of link impairment factors of a total link degradation.

21. (canceled)

22. (previously presented) The method of determining communication link quality employing beacon signals of claim 20, wherein the link impairment factors include a propagation loss factor.

23. (previously presented) The method of determining communication link quality employing beacon signals of claim 20, wherein the link impairment factors include an interference factor.

24. (previously presented) The method of determining communication link quality employing beacon signals of claim 20, wherein the link impairment factors include a noise factor.

25. (original) The method of determining communication link quality employing beacon signals of claim 20, wherein the processor is programmed to process data pertaining to variations in measured signal levels of the beacon signals to determine one or more link impairment factors.

26. (original) The method of determining communication link quality employing beacon signals of claim 25, wherein the link impairment factors include a scintillation factor.

27. (original) The method of determining communication link quality employing beacon signals of claim 20, wherein the processor is programmed to sequentially determine the link qualities.

28. (original) The method of determining communication link quality employing beacon signals of claim 20, wherein the communications stations comprise UHF communications satellites.

29. (original) The method of determining communication link quality employing beacon signals of claim 20, wherein the communications stations are part of one or more terrestrial cellular networks.

30. (previously presented) A method of determining communication link quality employing beacon signals, the method comprising the step of:

providing a machine-readable program to a processor that, when executed, enables the processor to control a communications device to process beacon signals from one or more communications stations, the beacon signals including a continuous wave (CW) tone and a coded signal that are different for each of the communications stations, to determine link quality between the communications device and the communications stations and to identify individual component impairments of a total link degradation to facilitate user selection of an available communications station that is most advantageous for communications.

31. (previously presented) The method of determining communication link quality employing beacon signals of claim 1, further comprising the step of:

correlating a received coded signal with a reference signal to provide estimated values of time delay components resulting from multipath for establishing time delays values in equalization.

32. (previously presented) The method of determining communication link quality employing beacon signals of claim 20, further comprising the step of:

correlating a received coded signal with a reference signal to provide estimated values of time delay components resulting from multipath for establishing time delays values in equalization.